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09/766,422	01/18/2001	John P. Reilly	066516.0108	7057

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EXAMINER	
SHAAWAT, MUSSA	

ART UNIT	PAPER NUMBER
2128	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/766,422	REILLY ET AL.	
	Examiner	Art Unit	
	Mussa A Shaawat	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 September 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 January 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8/25/01 4/25/01*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-36 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Elderton et al., Patent No. (6,477,572) referred to hereinafter as Elderton.

As per claim 1, Elderton teaches a system for modeling communication networks, comprising: a memory operable to store configuration data for a plurality of network types, the configuration data associating each network type with components, connections, and rules for connecting the components using the connections, a processing module coupled to the memory and operable to allow a user to select one of the network types and to design a communication network using the components and connections associated with the selected network type according to the configuration data, see **Elderton** (col.2, lines 10-50).

As per claim 2, Elderton teaches a system of Claim 1, wherein the processing module is further operable to determine whether a mode operation corresponding to a network type is activated and to allow a user to design a communication network of that

network type if the corresponding mode of operation is activated, see **Elderton** (col.2, lines 8-18).

As per claim 3, Elderton teaches a system of Claim 1, wherein the processing module is further operable to allow the user to select one of the components associated with the network type, to display a node to represent the selected component in the communication network, and to associate equipment with the selected component, see **Elderton** (col.6, lines 52-67 and col.7, lines 1-63).

As per claim 4, Elderton teaches a system of Claim 1, wherein the processing module is further operable to allow the user to select one of the connections associated with the network type, to connect two components using the selected connection according to the rules associated with the network type, and to display a connection line between two nodes to represent the connection between the two components, see **Elderton** (col.8, lines 1-45 and col.10 lines 55-65).

As per claim 5, Elderton teaches a system of Claim 1, wherein the rules associated with the network type indicate a maximum number of connections between one component and other components, see **Elderton** (col.8, lines 35-45).

As per claim 6, Elderton teaches a system of Claim 1, wherein: the configuration data associates the network type with a hierarchy of connectors; and the processing module is further operable to allow a user to assign subordinate connectors to a connection according to the configuration data associated with the network type, see **Elderton** (col3. lines 40-58 and col.5, lines 10-25 and col.7, lines 15-35).

As per claim 7, Elderton teaches a system of Claim 1, wherein the processing module is further operable to validate the user's communication network to ensure compliance with the rules associated with the network type according to the configuration data, see **Elderton** (col.6, lines 5-35 and col.7, 15-47).

As per claim 8, Elderton teaches a system of Claim 1, wherein the processing module is further operable to provision some of the communication network by communicating instructions to some components, see **Elderton** (col.5, lines 47-67).

As per claim 9, Elderton teaches a system of Claim 1, wherein the processing module comprises software instructions for modeling a generic communication network and interfaces with configuration data for specific types of networks, see **Elderton** (col.2, lines 26-39 and col.5, lines 25-35 and col.8, lines 35-44).

As per claim 10, Elderton teaches a system of Claim 1, wherein the configuration data associates the components with component properties and associates the connections with connection properties, see **Elderton** (col.6, lines 17-67 and col.7, lines 1-14).

As per claim 11, Elderton teaches a method of modeling communication networks, comprising: storing configuration data for a plurality of network types, the configuration data associating each network type with components, connections, and rules for connecting the components using the connections; receiving a user selection for one of the network types; and designing a communication network using the components and connections associated with the selected network type according to the configuration data, see **Elderton** (col.2, lines 10-50).

As per claim 12, Elderton teaches a method of Claim 11, further comprising: determining whether a mode operation corresponding to a network type is activated; and designing a communication network of that network type if the corresponding mode of operation is activated, see **Elderton** (col.2, lines 8-18).

As per claim 13, Elderton teaches a method of Claim 11, further comprising: receiving a user selection for one of the components associated with the network type; displaying a node to represent the selected component in the communication network; and associating equipment with the selected component, see **Elderton** (col.6, lines 52-67 and col.7, lines 1-63).

As per claim 14, Elderton teaches a method of Claim 11, further comprising: receiving a user selection for one of the connections associated with the network type; connecting two components using the selected connection according to the rules associated with the network type; and displaying a connection line between two nodes to represent the connection between the two components, see **Elderton** (col.8, lines 1-45 and col.10 lines 55-65).

As per claim 15, Elderton teaches a method of Claim 11, wherein the rules associated with the network type indicate a maximum number of connections between one component and other components, see **Elderton** (col.8, lines 35-45).

As per claim 16, Elderton teaches a method of Claim 11, wherein: the configuration data associates the network type with a hierarchy of connectors; and designing the communication network further comprises assigning subordinate connectors to a connection according to the configuration data associated with the

network type, see **Elderton** (col.3, lines 40-58 and col.5, lines 10-25 and col.7, lines 15-35).

As per claim 17, Elderton teaches a method Claim 11, further comprising validating the rules associated with the communication network to ensure compliance with the network type according to the configuration data, see **Elderton** (col.6, lines 5-35 and col.7, 15-47).

As per claim 18, Elderton teaches a method of Claim 11, further comprising provisioning some of the communication network by communicating instructions to some components, see **Elderton** (col.5, lines 47-67).

As per claim 19, Elderton teaches a method of Claim 11, wherein desiring the communication network further comprises interfacing software instructions for modeling a generic communication network with configuration data for specific types of networks, see **Elderton** (col.2, lines 26-39 and col.5, lines 25-35 and col.8, lines 35-44).

As per claim 20, Elderton teaches a method of Claim 11, wherein the configuration data associates the components with component properties and associates the connections with connection properties, see **Elderton** (col.6, lines 17-67 and col.7, lines 1-14).

As per claim 21, Elderton teaches a Network modeling software embodied in a computer-readable medium and operable to perform the following steps: storing configuration data for a plurality of network types, the configuration data associating each network type with components, connections, and rules for connecting the components using the connections; receiving a user selection for one of the network

types; and designing a communication network using the components and connections associated with the selected network type according to the configuration data, see **Elderton** (col.2, lines 10-50).

As per claim 22, Elderton teaches a network modeling software of Claim 21, further operable to perform the steps of: determining whether a mode operation corresponding to a network type is activated; and designing a communication network of that network type if the corresponding mode of operation is activated, see **Elderton** (col.2, lines 8-18).

As per claim 23, Elderton teaches a network modeling software of Claim 21, further operable to perform the steps of: receiving a user selection for one network type; of the components associated with the displaying a node to represent the selected component in the communication network; and associating equipment with the selected component, see **Elderton** (col.6, lines 52-67 and col.7, lines 1-63).

As per claim 24, Elderton teaches a network modeling software of Claim 21, further operable to perform the steps of: receiving a user selection for one of the connections associated with the network type; connecting two components using the selected connection according to the rules associated with the network type; and displaying a connection line between two nodes to represent the connection between the two components, see **Elderton** (col.8, lines 1-45 and col.10 lines 55-65).

As per claim 25, Elderton teaches a network modeling software of Claim 21, wherein the rules associated with the network type indicate a maximum number of

connections between one component and other components, see **Elderton** (col.8, lines 35-45).

As per claim 26, Elderton teaches a network modeling software of Claim 21, wherein: the configuration data associates the network type with a hierarchy of connectors; and designing the communication network further comprises assigning subordinate connectors to a connection according to the configuration data associated with the network type, see **Elderton** (col.3, lines 40-58 and col.5, lines 10-25 and col.7, lines 15-35).

As per claim 27, Elderton teaches a network modeling software of Claim 21, further operable to perform the step of validating the communication network to ensure compliance with the rules associated with the network type according to the configuration data, see **Elderton** (col.6, lines 5-35 and col.7, 15-47).

As per claim 28, Elderton teaches a network modeling software of Claim 21, further operable to perform the step of provisioning some of the communication network by communicating instructions to some components, see **Elderton** (col.5, lines 47-67).

As per claim 29, Elderton teaches a network modeling software of Claim 21, wherein designing the communication network further comprises interfacing software instructions for modeling a generic communication network with configuration data for specific types of networks, see **Elderton** (col.2, lines 26-39 and col.5, lines 25-35 and col.8, lines 35-44).

As per claim 30, Elderton teaches a network modeling software of Claim wherein the configuration data associates the components with component properties and

associates the connections with connection properties, see **Elderton** (col.6, lines 17-67 and col.7, lines 1-14).

As per claim 31, Elderton teaches a system for modeling communication networks, comprising: a memory operable to store first configuration data for a first network type and second configuration data for a second network type; and a processing module coupled to the memory and operable to determine whether a first mode operation corresponding to the first network type is activated and to model a communication network of the first network type using the first configuration data if the first mode of operation is activated, the processing module further operable to determine whether a second mode of operation corresponding to the second network type is activated and to model a communication network of the second network type using the second configuration data if the second mode of operation is activated, see **Elderton** (col.2, lines 10-50 and col.2, lines 8-18).

As per claim 32, Elderton teaches a system of Claim 31, wherein: the first configuration data describes components and connections that may be included in the communication network of the first network type and rules for connecting the components using the connections; and the processing module allows a user to design the communication network of the first network type using the components and connections according to the rules, see **Elderton** (col.8, lines 1-45 and col.10 lines 55-65 and col.8, lines 35-45 col.6, lines 5-35 and col.7, 15-47).

As per claim 33, Elderton teaches a system of Claim 31, wherein the processing module models the communication network of the first network type by creating nodes

to represent components of the first network type and creating connection lines to represent connections between the components according to the first configuration data, see **Elderton** (col.6, lines 17-67 and col.7, lines 1-14).

As per claim 34, Elderton teaches a method for modeling communication networks, comprising: storing first configuration data for a first network type; storing second configuration data for a second network type; determining whether a first mode operation corresponding to the first network type is activated; modeling a communication network of the first network type using the first configuration data if the first mode of operation is activated; determine whether a second mode of operation corresponding to the second network type is activated', and modeling a communication network of the second network type using the second configuration data if the second mode of operation is activated, see **Elderton** (col.2, lines 10-50 and col.2, lines 8-18).

As per claim 35, Elderton teaches a method of Claim 34, wherein: the first configuration data describes components and connections that may be included the communication network of the first network type and rules for connecting the components using the connections; and modeling the communication network of the first type further comprises using the components and connections according to the rules, see **Elderton** (col.8, lines 1-45 and col.10 lines 55-65 and col.8, lines 35-45 col.6, lines 5-35 and col.7, 15-47).

As per claim 36, Elderton teaches a method of Claim 34, wherein modeling the communication network of the first network type further comprises displaying nodes to represent components of the first network type and connection lines to represent

connections between the components according to the first configuration data, see **Elderton** (col.6, lines 52-67 and col.7, lines 1-63 and col.8, lines 1-45 and col.10 lines 55-65).

Response to arguments

3. Applicant's arguments filed have been fully considered but they are not persuasive.

In the remarks, the applicant argues in substance of claims 1, 11, 21, 31, and 34 that; A) Elderton does not disclose a configuration data associating each network type with components, connections, and rules for connecting the components using the connections, B) Elderton does not disclose a processing module operable to allow a user to select one of the network types and to design a communication network using the components and connections associated with the selected network type according to the configuration data, C) Elderton does not describe different network types or different modes of operation associated with different network types. In addition Elderton does not describe whether a particular mode of operation is activated and, if the mode of operation is activated, modeling a communication network of a network type associated with the mode of operation.

In response to A) Elderton teaches "a method for displaying a network topology begins by presenting a user a set of attributes for network objects in the network. The user then selects a given attributes and an attribute value. A mapper routine of the invention then builds a topology map that includes at least one icon representing network objects that have the user-selected attribute value for the attribute" (see

abstract)." In addition Elderton teaches "an endpoint list that contains all information necessary to uniquely identify and manage each endpoint including, without limitation, such information as name, location, and machine type. The server also maintains the mapping between each endpoint and gateway, and this mapping is preferably dynamic (see col.5 lines 10-18)". The name and machine type taught by Elderton corresponds to type of a network component. In reference to the rules for connecting, Elderton discloses maps for mapping between the components i.e. gateway and endpoint lists and connection between components through mapping. Therefore, the mapping between each endpoint and a gateway meets the scope of the claimed limitation "a configuration data associating each network type with components, connections, and rules for connecting the components using the connections".

In response to B) Elderton teaches a method of displaying computer network maps and components according to a user selection of attributes (see col.2 lines 19-26). Elderton allows a user to select a given attribute i.e. attributes are of a network types. In addition Elderton teaches "an endpoint list that contains all information necessary to uniquely identify and manage each endpoint including, without limitation, such information as name, location, and machine type". The name and machine type taught by Elderton corresponds to network component type. Furthermore, by selecting an attribute of a network object i.e. gateway and endpoint list, a user selects a network type. Therefore Elderton meets the scope of claimed limitation "a processing module operable to allow a user to select one of the network types and to design a

communication network using the components and connections associated with the selected network type according to the configuration data".

In response to C) Elderton discloses different network types (see col.3 lines 40-49, col.2 lines 9-18, Figs. 9-10). More specifically Elderton describes a set of nodes grouped according to a given characteristics/attributes. Referring to Figs. 9-10, a network can be grouped with respect to location, size, etc., i.e. network types or objects. If the network consist of one or more cities, it is of type MAN (Metropolitan Area Network). Conversely a computer environment may consist of thousands of nodes geographically dispersed along a vast area. In addition Elderton describes different modes of operation in each respective network type (see col.3 lines 40-58, col.5 lines 47-56). A distributed computer network environment, consist of one or more server for carrying out distributed network modes of operation. Such modes of operation include but are not limited to the function of "name servers, security servers, file servers, thread servers, time servers and the like" (see Elderton col.3 lines 51-52). The server furthers coordinate all activity within the managed regions. Also Elderton describes whether a particular mode of operation is activated and, if the mode of operation is activated, modeling a communication network of a network type associated with the mode of operation (see col.6 lines 4-10). If a mode of operation is not activated, it would be displayed in the network topology map. However if the mode of operation is activated the network manager, through its discovery module, will build and display a unique grouping of network objects. Therefore, Elderton teaches the scope of the claimed limitation "different network types or different modes of operation associated with

different network types. Determining whether a particular mode of operation is activated and, if the mode of operation is activated, modeling a communication network of a network type associated with the mode of operation".

In light of the foregoing arguments, the 35 USC 102 rejection is hereby sustained.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ghannam et al., Patent No. (6,651,062) method and apparatus for managing data for use by data.
- Berman, Patent No. (5,754,831) system and methods for modeling a network.

- Stilwell et al, Patent No. (5,907,696) network device simulator.
- Cohoe et al, Patent No. (6,108,309) SONET network element simulator.
- Campbell et al., Patent No. (6,643,837) system and method for automatically designing communications circuit.
- Brockel et al., Patent No. (6,058,260) methods and apparatus for planning and managing a communications network.
- Clement et al., Patent No. (5,793,958) network interfacing system with modules for administrating various protocol layers for plurality of OSI models.
- Andrews et al., Patent No. (6,363,334) linear programming method of networking design for carrying traffic from end nodes to a core network at least cost.
- Xu et al., Patent No. (5,715,432) method and system for developing network analysis and modeling with graphical objects.
- Kawas et al., Patent No. (6,058,262) computer-aided-design method and apparatus for networks.
- Cooper et al. Patent No. (5,809,282) automated network simulation and optimization system.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mussa A Shaawat whose telephone number is (571) 272-3785. The examiner can normally be reached on Monday-Friday (8:30am to 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jean R Homere can be reached on (571) 272-3780. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mussa Shaawat
Patent Examiner
January 11, 2005

JEAN HOMERE
SUPERVISORY PATENT EXAMINER